

Overview

The AMX MVP-8400 panel (FG5965-05) uses an internal wireless compact flash card to communicate with a NetLink Master via an off-the-shelf 802.11b/g Wireless Access Point. The MVP-8400 units utilizes a 8.4" Color Active LCD to display a 800 x 600 pixel image using over 256 K colors, and features programmable firmware that can be upgraded via either the wireless card or the mini-USB port.

The MVP-8400 also features nine programmable external pushbuttons and two sets of display LEDs. These panels are configured to operate on a standard 802.11b/g wireless network. On the 4 available IR channels, this panel utilizes both AMX IR frequencies (38 KHz or 455 KHz) and 2 additional user-defined IR libraries.

For detailed installation, configuration, programming, file transfer, and operating instructions refer to the *MVP-7500/8400 Modero ViewPoint Touch Panels* operation/reference guide, available on-line at www.amx.com.



FIG. 1 MVP-8400 Touch Panel component locations

Specifications

MVP-8400 (FG5965-05) Specifications	
Dimensions (HWD):	7.17" x 10.47" x 1.34" (18.20 cm x 26.60 cm x 3.40 cm)
Power Requirement (without charging):	Panel with batteries fully charged or with no batteries: <ul style="list-style-type: none"> Constant current draw: 1.2 A @ 12 VDC Startup current draw: 1.8 A @ 12 VDC If panel is mounted onto a TDS or WDS, add 0.1 A to the above figures.
Power Requirement (while charging):	Panel while charging batteries: <ul style="list-style-type: none"> Constant current draw: 3.2 A @ 12 VDC Startup current draw: 3.8 A @ 12 VDC If panel is mounted onto a TDS or WDS, add 0.1 A to the above figures.
Minimum power supply required:	PS4.4 Power Supply (FG423-45) - All MVP models are shipped with this power supply.
Power Modes:	<ul style="list-style-type: none"> ON: Panel is fully functional. STANDBY: Panel uses low power, the LCD/backlight is shutdown, LEDs still function. Panel resumes the ON mode in ~ 1 second. OFF: On-board programs not running, touch screen still powered, LED not functional. Panel resumes the ON mode in ~ 30 seconds.
Certifications:	FCC Part 15 Class B and CE
Battery Duration:	<ul style="list-style-type: none"> Eight hours of normal use (25% On state, 25% Standby, and 50% Off). Four hours of continuous use (continuous On state). <p>The MVP-8400 ships with two MVP-BP batteries. You must use both batteries to obtain the duration times given above.</p>
Memory:	<ul style="list-style-type: none"> 64 MB SDRAM 64 MB Compact Flash (upgradable to 1 GB) - factory programmed
Weight:	<ul style="list-style-type: none"> Panel (no batteries): 1.85 lbs (0.84 kg) Panel with one battery: 2.25 lbs (1.02 kg)

MVP-8400 Specifications (Cont.)

Screen Properties:	<ul style="list-style-type: none"> Screen resolution: 800 x 600 pixels (HV) @ 60 Hz frame frequency Aspect ratio: 4 x 3 Brightness (luminance): 180 cd/m2 Channel transparency: 8-bit Alpha blending Contrast ratio: 350:1 Display colors: 256K colors (18-bit color depth) Dot/pixel pitch: 0.21 mm Panel type: TFT Color Active-Matrix
Viewing Angle:	<ul style="list-style-type: none"> Vertical: + 60° (up from center) and - 40° (down from center)
Operating/Storage Environments:	<ul style="list-style-type: none"> Operating Temperature: 0° C (32° F) to 40° C (104° F) Operating Humidity: 20% - 85% RH Storage Temperature: -20° C (-4° F) to 60° C (140° F) Storage Humidity: 5% - 85% RH
Included Accessories:	<ul style="list-style-type: none"> Wireless Interface Compact Flash card (CF Type 1) (pre-installed into MVP) PS4.4 Power Supply (FG423-44) Stylus (pre-installed onto the left side of the unit) Two MVP-BP Power Packs (FG5965-20)
Other AMX Equipment:	<ul style="list-style-type: none"> CB-MVPWDS Conduit Box (FG037-10) CC-USB Type A to mini-B programming cable (FG10-5965) MVP-BP battery (FG5965-20) MVP-KS Kickstand (FG5965-12) MVP-STYLUS three pack (FG5965-30) MVP-TDS Table Top Docking Station (FG5965-10) MVP-WDS Wall Docking Station - <i>Black</i> (FG5965-11) MVP-WDS Wall Docking Station - <i>Silver</i> (FG5965-21) MVP-WDS-SK Silver Conversion Kit (FG5965-22) Upgrade Compact Flash (pre-programmed with firmware): <ul style="list-style-type: none"> NXA-84CF128M 128 MB compact flash card (FG2116-50) NXA-84CF256M 256 MB compact flash card (FG2116-51) NXA-84CF512M 512 MB compact flash card (FG2116-52) NXA-84CF1GB 1 GB compact flash card (FG2116-53)

Connections and Wiring

The **PS4.4** Power Supply (with barrel connector) provides power to the MVP-8400 either *directly* (via the power connector located on the lower right-side of the panel) or *indirectly* (by routing incoming power through the Docking Station's MVP Interface Connector).

- Once the MVP is connected to a docking station; charging priority is first given to any MVP-BP battery packs found within the MVP-8400 and then to any other batteries inserted into the docking station's battery charging compartments.

WARNING: Although firmware upgrades can be done over wireless Ethernet; it is strongly recommended that firmware KIT files be transferred over a direct USB connection and only when the panel is connected to a power supply. If battery power or wireless connection fails during a firmware upgrade, the panel flash file system may become corrupted.

Setup Pages

The panel is equipped with setup pages that allow you to set and configure various features on the panel. Consult the *MVP-7500/8400 Modero ViewPoint Touch Panels* Operation/Reference guide for detailed information on the *Setup* pages.

Accessing The Protected Setup Page

- Press down and hold both the bottom, left pushbutton and down on the directional pad (indicated in FIG. 1) simultaneously for 3-5 seconds. This opens the *Setup* page.
- Press **Protected Setup** button on the *Setup* page. This opens a keypad for password entry.
- Enter the panel password into the keypad (default is **1988**) and select **Done** to access the *Protected Setup* page.

Setting the Panel's Device Number

In the *Protected Setup* page:

- Press the **Device Number** field to open the Device Number keypad. Enter a unique Device Number assignment for the panel, and press **Done** to return to the *Protected Setup* page.
- Press **Reboot** to reboot the panel, and apply the new Device Number.

Configuring the Panel's Wireless IP Settings

The first step is to configure the wireless communication parameters, this only configures the card to communicate to a target WAP, it is still necessary to tell the panel which Master it should be communicating with; see *Master Connection*.

Consult the *MVP-7500/8400 Modero ViewPoint Touch Panels Operation/Reference guide* for setting the wireless communication using a static IP address.

Wireless communication using a DHCP Address

In the *Protected Setup* page:

1. Select **Wireless Settings**. Wireless communication is set within the IP Settings section of this page.
2. Toggle the *DHCP/Static* field (from the IP Settings section) until the choice cycles to *DHCP*. This action causes all fields in the IP Settings section (other than Host Name) to be greyed-out.

Do not alter any of these remaining greyed-out fields in the IP Settings section. Once the panel is rebooted, these values are obtained by the unit and displayed in the *DNS* fields after power-up.

Consult the *MVP-7500/8400 Modero ViewPoint Touch Panels Operation/Reference guide* for setting a Host Name.

Configuring the Card's Wireless Settings

This section configures both the communication and security parameters from the internal wireless card to the WAP.

Once you have set up the wireless card parameters, you must configure the communication parameters for the target Master; see *Master Connection*.

Consult the *MVP-7500/8400 Modero ViewPoint Touch Panels Operation/Reference guide* for configuring the wireless card for unsecured access to the WAP.

Configuring the Wireless Card for Secured Access to the WAP

In the *Protected Setup* page:

1. Select **Wireless Settings**.
2. Enter the SSID information automatically by pressing the **Site Survey** button.
3. Select a **WEP** secured WAP from within the Site Survey page, and press the **Connect** button.
4. Write down the SSID name, Current Key string value, and panel MAC Address information so you can later enter it into the appropriate WAP dialog fields in order to "sync-up" the secure connection. These values must be identically reproduced on the target WAP.

Consult the *MVP-7500/8400 Modero ViewPoint Touch Panels Operation/Reference guide* for manually entering the SSID information.

Master Connection

The panel requires you establish the type of connection you want made between it and your master. In the *Protected Setup* page:

1. Select *System Settings*
2. Select *Type* to toggle between *USB* and *Ethernet*.
3. When using *Ethernet*, press the listed *Mode* to toggle through the available connection modes:

Connection Modes		
Mode	Description	Procedures
Auto	The device connects to the first master that responds. This setting requires you set the System Number.	Setting the System Number: 1. Select the System Number to open the keypad. 2. Set your System Number select Done .
URL	The device connects to the specific IP of a master via a TCP connection. This setting requires you set the Master's IP.	Setting the Master IP: 1. Select the Master IP number to the keyboard. 2. Set your Master IP and select Done .
Listen	The device "listens" for the master to initiate contact. This setting requires you provide the master with the device's IP.	Confirm device IP is on the Master URL list. You can set the Host Name on the device and use it to locate the device on the master. Host Name is particularly useful in the DHCP scenario where the IP address can change.

4. Select the *Master Port Number* to open the keypad and change this value. The default setting for the port is **1319**.
5. Set your Master Port and select **Done**.
If you have enabled password security on your master you need to set the username and password within the device.
6. Select the blank field *Username* to open the keyboard.
7. Set your Username and select **Done**.
8. Select the blank field *Password* to open the keyboard.
9. Set your Password and select **Done**.
10. Press the **Back** button to return to the *Protected Setup* page.
11. Press the **Reboot** button to reboot device and confirm changes.

Touch Panel Calibration

In the *Protected Setup* page, follow these steps:

1. Select **Calibrate**.
2. Touch each target on the screen as they appear. Once calibrated the panel confirms and instructs you to touch the screen to continue.

Related Documents

- *MVP-7500/8400 Modero ViewPoint Touch Panels Operation/Reference Guide*
- *MVP-TDS Table Docking Station Operation/Reference Guide*
- *MVP-WDS Wall Docking Station Operation/Reference Guide*
- *MVP-KS KickStand Operation/Reference Guide*
- *VisualArchitect Operation/Reference Guide*
- *G4 PanelBuilder Operation/Reference Guide*
- *TPDesign4 Touch Panel Design Program Operation/Reference Guide*

Caution: There are particular operations, such as upgrading the NXA-CFSP compact flash card and replacing/installing the NXA-WC80211GCF Wireless Compact Flash Card, that require opening the MVP's outer housing to access internal components (as described in the *MVP-7500 Modero ViewPoint Touch Panels Operation/Reference Guide*).

When opening the MVP panel housing to access internal components, be careful not to damage or disconnect the wireless compact flash card antenna, which is mounted to the inside of the rear housing.

